The Very Best of
Litemind

2 Years of Mind Explorations

Table of Contents

Tackle Any Issue With a List of 100

The List of 100 is a powerful technique you can use to generate ideas, clarify your thoughts, uncover hidden problems or get solutions to any specific questions you're interested in.

The technique is very simple in principle: state your issue or question in the top of a blank sheet of paper and come up with a list of **one hundred answers or solutions about it**. "100 Ways to Generate Income", "100 Ways to be More Creative" or "100 Ways to Improve my Relationships" are some examples.

"**One hundred entries?** Isn't that way too many?"

Bear with me: it's exactly this exaggeration that makes the technique powerful.

When starting your list you may believe that there's no way to get it done. But then, at some point during the exercise, you will naturally have your subconscious mind naturally engaged in the process. That's when you will uncover many new and surprising answers, and ideas will start flowing again. Making a List of 100 is a beautifully articulated cooperation between the conscious and subconscious minds tackling one single problem.

Unlike the related Idea Quota tool — whose primary goal is to acquire the habit of coming up with ideas — the goal of a List of 100 is to take your mind by surprise. While both techniques are based on the concept of getting good ideas from lots of ideas, the ideas generated by each method are usually different in kind. With the Idea Quota you

tend to have more elaborate ideas, because you have time to incubate them throughout the day (often without being aware of it). With a List of 100 you tend to get more unexpected ideas, because you catch your subconscious off guard, not giving it any time for its behind-the-scenes editing.

Ground Rules

There are only two simple principles to keep in mind when making Lists of 100:

1. Do it at one sitting

This is the **one crucial element for the technique to work**. If you end up doing your hundred entries, though over many sessions, you'll defeat the point of the technique. Before starting your list, make yourself comfortable and try to block all potential interruptions.

2. Eliminate distractions

Just like most brainstorming techniques, you should strive to **eliminate all activities unrelated to idea generation** during the brainstorming session. Just focus on getting the ideas out of your head as quickly as possible following these rules:

- Don't judge or evaluate ideas: you'll review them later.

- Don't write complete words or sentences if that slows you down.
- Don't stop to wonder how far in the list you are; number the lines from 1 to 100 in advance or use numbered lists if you're using a word processor.
- Don't worry too much about repeating entries; duplicates can shed light on your patterns of thought.

The Dynamics of Making Lists of 100

To understand why creating a List of 100 works, consider what happens during the process of making one. There are three distinct phases you will usually go through when making your list:

1. First 30 entries or so: where you escape circular thinking

The first items are the easiest to come up with. In this first phase, your conscious mind is still in charge and you'll most probably just dump ideas you're already familiar with.

2. Next 40 entries: where patterns emerge

In this phase you'll start noticing recurring themes and patterns of thought. Phase two is usually the hardest one, as you may find it difficult to let go of the ideas you had in the first phase in order to come up with new, distinct ones.

Bear in mind that it's exactly this struggle that enables you to get to the third and most fruitful phase, hence the importance of not giving up at this point.

3. Last 30 entries: where the gems are

At this point you will already have exhausted most "logical" answers, allowing your subconscious mind to express itself more freely. Don't be surprised if you get at least one or two really nonsensical or seemingly illogical entries. You may feel tempted to not write them down ("*How* on earth did I think *that*?"). Write them down anyway: these wacky entries may sound far from profound, but it's exactly those items you're after.

Also, after coming up with so many entries, it's not rare to experience a shift in perspective: items that you first felt as being awkward will seem to better fit now than when you started the list. Moreover, your whole attitude towards the problem can change as you develop your entries: you may even come to the conclusion that you should be dealing with a different list topic altogether.

Applications of Lists of 100

Although I have known a variation of the List of 100 technique for several years (thanks to Michael Gelb's *How to Think Like Leonardo da Vinci*), it was only recently that I realized the technique's full potential by reading Kathleen Adams's *Journal to the Self: 22 Paths to Personal Growth*. This is an excellent book that has many great journaling techniques — and the List of 100 has its own chapter.

The List of 100 technique can be used for a lot more than solving specific problems; it is a general-purpose personal development tool that can help increase your self-knowledge, motivate yourself, and much more. To illustrate its myriad of uses, find below a **List of 100 Lists of 100**. The list was mostly taken from *Journal to the Self*, and slightly adapted with some of my own ideas.

100 Things to Write a List of 100 About

1. 100 Things I'm Grateful For
2. 100 Ways I Could Nurture Myself
3. 100 Ways I Sabotage Myself
4. 100 Things I'm Good At
5. 100 Things I Like About Myself
6. 100 Questions I Want Answers
7. 100 Ways To Improve My Life
8. 100 Things I've Accomplished In My Life
9. 100 Things I'm Feeling Stressed About
10. 100 Things I'd Do If I Had Time
11. 100 Things I Need Or Want To Do
12. 100 Things I Want To Accomplish In The Next X Months
13. 100 Things To Do Before I Die
14. 100 Things That Are Going Right
15. 100 Things That Are Going Wrong
16. 100 Reasons I Want To Stay Married/Committed
17. 100 Reasons I Don't Want To Stay Married/Committed
18. 100 Things I Want In A Partner/Relationship
19. 100 Things I Have To Offer To A Partner/Relationship
20. 100 Fears I Am Having Right Now
21. 100 Things That Once Scared Me But Don't Anymore
22. 100 Reasons To Save Money
23. 100 Things I Miss
24. 100 Sacrifices I Have Made
25. 100 Marketing Ideas For My Business
26. 100 Ways I Can Make Money
27. 100 Ways To Make A Difference
28. 100 Jobs/Careers I'd Like To Have
29. 100 Fears About Being A Multimillionaire
30. 100 Things I Believe In
31. 100 Achievements (Qualities) I Am Proud Of
32. 100 Things I Value In Life
33. 100 Ways I Help Others
34. 100 Things That Turn Me On
35. 100 Things That Turn Me Off
36. 100 Judgments I Make
37. 100 Things I Find Hard To Share
38. 100 Things I'm Disappointed About
39. 100 Things I'm Angry About
40. 100 Things I'm Sad About
41. 100 Things [Peoples, Places] I Love
42. 100 Things To Do When I'm Depressed
43. 100 Things To Do When I'm Alone
44. 100 Rules I Have Broken
45. 100 Skills I Have
46. 100 Feelings I Am Having Right Now
47. 100 Childhood Memories

48. 100 Things My Parents Used To Say To Me
49. 100 Ways In Which I'm Generous
50. 100 Ways To Be More Productive
51. 100 Things I Hate
52. 100 Things I Want
53. 100 Places I'd Like To Visit
54. 100 Things I'd Like Someone To Tell Me
55. 100 Things I'd Like To Hear
56. 100 Things I'd Like To Tell My Child
57. 100 Things I Want My Child To Know About Me
58. 100 Reasons To Have A Baby
59. 100 Reasons Not To Have A Baby
60. 100 Adjectives Describing Myself
61. 100 Decisions Other Have Made For Me
62. 100 Decisions I Made That Turned Out Well
63. 100 Things I'd Do If I Had Six Months To Live
64. 100 Expectations Other Have Of Me
65. 100 Expectations I Have Of Myself
66. 100 Judgments I Haven't Released
67. 100 Ways To Be More Creative
68. 100 Things I Could Carry In My Pocket
69. 100 Things I'd Save If My House Were On Fire
70. 100 Things I Want To Tell My Mother [Father]
71. 100 Things I'd Never Tell My Mother [Father]
72. 100 Financial Fears
73. 100 Excuses I Make For Myself
74. 100 Things I Need/Want To Control
75. 100 Fears I Have About Giving Up Control

76. 100 Answered Prayers
77. 100 People I'd Like To Meet
78. 100 Reasons Why I Get Jealous
79. 100 People I Admire
80. 100 Tasks I've Been Procrastinating
81. 100 Memories From My Past
82. 100 Things That Nourish Me
83. 100 Things I Haven't Finished
84. 100 Things I'm Glad I've Done
85. 100 Things I'll Never Do Again
86. 100 Ways To Generate Income
87. 100 Principles To Live By
88. 100 People I Want To Forgive
89. 100 People I Want To Forgive Me
90. 100 Things To Forgive Myself For
91. 100 Mistakes I Have Made
92. 100 Lessons I Have Learned
93. 100 Ways To Be Healthier
94. 100 Things That Make Me Cry
95. 100 Things That Make Me Laugh
96. 100 Things I'd Delegate
97. 100 Thing I Want For My Birthday
98. 100 Possessions I'm Tired Of Owning
99. 100 Responsibilities That I'd Like To Avoid
100. 100 Things To Write A List Of 100 About

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Einstein's Secret to Amazing Problem Solving

Einstein is quoted as having said that if he had one hour to save the world he would spend *fifty-five minutes defining the problem and only five minutes finding the solution*.

This quote does illustrate an important point: before jumping right into solving a problem, we should step back and invest time and effort to improve our understanding of it. Here are 10 strategies you can use to see problems from many different perspectives and master what is the most important step in problem solving: **clearly defining the problem in the first place!**

The Problem Is To Know What the Problem Is

The definition of the problem will be the focal point of all your problem-solving efforts. As such, it makes sense to devote as much attention and dedication to problem definition as possible. What usually happens is that as soon as we have a problem to work on we're so eager to get to solutions that we neglect spending any time refining it.

What most of us don't realize — and what supposedly Einstein might have been alluding to — is that the quality of the solutions we come up with will be in direct proportion to the quality of the description of the problem we're trying to solve. Not only will your solutions be more abundant and of higher quality, but they'll be achieved much,

much more easily. Most importantly, you'll have the confidence to be tackling a worthwhile problem.

Problem Definition Tools and Strategies

The good news is that getting different perspectives and angles in order to clearly define a problem is a **skill that can be learned and developed**. As such, there are many strategies you can use to perfect it. Here are the 10 most effective ones I know.

1. Rephrase the Problem

When a Toyota executive asked employees to brainstorm "ways to increase their productivity", all he got back were blank stares. When he rephrased his request as "ways to make their jobs easier", he could barely keep up with the amount of suggestions.

Words carry strong implicit meaning and, as such, play a major role in how we perceive a problem. In the example above, 'be productive' might seem like a sacrifice you're doing for the company, while 'make your job easier' may be more like something you're doing for your own benefit, but from which the company also benefits. In the end, the problem is still the same, but the feelings — and the points of view — associated with each of them are vastly different.

Play freely with the problem statement, rewording it several times. For a methodic approach, take single words and substitute variations.

'Increase sales'? Try replacing 'increase' with 'attract', 'develop', 'extend', 'repeat' and see how your perception of the problem changes. A rich vocabulary plays an important role here, so you may want to use a thesaurus or develop your vocabulary.

2. Expose and Challenge Assumptions

Every problem — no matter how apparently simple it may be — comes with a long list of assumptions attached. Many of these assumptions may be inaccurate and could make your problem statement inadequate or even misguided.

The first step to get rid of bad assumptions is to make them explicit. Write a list and expose as many assumptions as you can — especially those that may seem the most obvious and 'untouchable'.

That, in itself, brings more clarity to the problem at hand. But go further and test each assumption for validity: think in ways they might not be valid and their consequences. What you will find may surprise you: that many of those bad assumptions are self-imposed — with just a bit of scrutiny you are able to safely drop them.

For example, suppose you're about to enter the restaurant business. One of your assumptions might be 'restaurants have a menu'. While such an assumption may seem true at first, try challenging it and maybe you'll find some very interesting business models (such as one restaurant in which customers bring dish ideas for the chef to cook, for example).

3. Chunk Up

Each problem is a small piece of a greater problem. In the same way that you can explore a problem laterally — such as by playing with words or challenging assumptions — you can also explore it at different "altitudes".

If you feel you're overwhelmed with details or looking at a problem too narrowly, look at it from a more general perspective. In order to make your problem more general, ask questions such as: *"What's this a part of?"*, *"What's this an example of?"* or *"What's the intention behind this?"*.

For a detailed explanation of how this principle works, check the article *Boost Your Brainstorm Effectiveness with the Why Habit*.

Another approach that helps a lot in getting a more general view of a problem is replacing words in the problem statement with *hypernyms*. Hypernyms are words that have a broader meaning than the given word. (For example, a hypernym of 'car' is 'vehicle'). A great, free tool for finding hypernyms for a given word is WordNet (just search for a word and click on the 'S:' label before the word definitions).

4. Chunk Down

If each problem is part of a greater problem, it also means that each problem is composed of many smaller problems. It turns out that decomposing a problem in many smaller problems — each of them more specific than the original — can also provide greater insights about it.

'Chunking the problem down' (making it more specific) is especially useful if you find the problem overwhelming or daunting.

Some of the typical questions you can ask to make a problem more specific are: *"What are parts of this?"* or *"What are examples of this?"*.

Just as in 'chunking up', word substitution can also come to great use here. The class of words that are useful here are *hyponyms*: words that are stricter in meaning than the given one. (E.g. two hyponyms of 'car' are 'minivan' and 'limousine'). WordNet can also help you finding hyponyms.

5. Find Multiple Perspectives

Before rushing to solve a problem, always make sure you look at it from different perspectives. Looking at it with different eyes is a great way to have instant insight on new, overlooked directions.

For example, if you own a business and are trying to 'increase sales', try to view this problem from the point of view of, say, a customer. For example, from the customer's viewpoint, this may be a matter of adding features to your product that one would be willing to pay more for.

Rewrite your problem statement many times, each time using one of these different perspectives. How would your competition see this problem? Your employees? Your mom?

Also, imagine how people in various roles would frame the problem. How would a politician see it? A college professor? A nun? Try to find the differences and similarities on how the different roles would deal with your problem.

6. Use Effective Language Constructs

There isn't a one-size-fits-all formula for properly crafting the perfect problem statement, but there are some language constructs that always help making it more effective:

- **Assume a myriad of solutions.** An excellent way to start a problem statement is: *"In what ways might I…"*. This expression is much superior to "How can I…" as it hints that there's a multitude of solutions, and not just one — or maybe none. As simple as this sounds, the feeling of expectancy helps your brain find solutions.
- **Make it positive**. Negative sentences require a lot more cognitive power to process and may slow you down — or even derail your train of thought. Positive statements also help you find the real goal behind the problem and, as such, are much more motivating.

  For example: instead of finding ways to 'quit smoking', you may find that 'increase your energy', 'live longer' and others are much more worthwhile goals.
- **Frame your problem in the form of a question.** Our brain loves questions. If the question is powerful and engaging, our brains will do everything within their reach to answer it. We just can't help it: Our brains will start working on the problem

immediately and keep working in the background, even when we're not aware of it.

If you're still stuck, consider using the following formula for phrasing your problem statement:

"In what ways (action) (object) (qualifier) (end result)?"

Example: In what ways might I package (action) my book (object) more attractively (qualifier) so people will buy more of it (end result)?

7. Make It Engaging

In addition to using effective language constructs, it's important to come up with a problem statement that truly excites you so you're in the best frame of mind for creatively tackling the problem. If the problem looks too dull for you, invest the time adding vigor to it while *still keeping it genuine*. Make it enticing. Your brain will thank (and reward) you later.

One thing is to 'increase sales' (boring), another one is 'wow your customers'. One thing is 'to create a personal development blog', another completely different is to 'empower readers to live fully'.

8. Reverse the Problem

One trick that usually helps when you're stuck with a problem is turning it on its head.

If you want to win, find out what would make you lose. If you are struggling finding ways to 'increase sales', find ways to decrease them instead. Then, all you need to do is reverse your answers. 'Make more sales calls' may seem an evident way of increasing sales, but sometimes we only see these 'obvious' answers when we look at the problem from an opposite direction.

This seemingly convoluted method may not seem intuitive at first, but turning a problem on its head can uncover rather obvious solutions to the original problem.

9. Gather Facts

Investigate causes and circumstances of the problem. Probe details about it — such as its origins and causes. Especially if you have a problem that's too vague, investigating facts is usually more productive than trying to solve it right away.

If, for example, the problem stated by your spouse is "You never listen to me", the solution is not obvious. However, if the statement is "You don't make enough eye contact when I'm talking to you," then the solution is obvious and you can skip brainstorming altogether. (You'll still need to work on the implementation, though!)

Ask yourself questions about the problem. What is not known about it? Can you draw a diagram of the problem? What are the problem boundaries? Be curious. Ask questions and gather facts. It is said that a well-defined problem is halfway to being solved: I would add that a perfectly-defined problem is not a problem anymore.

10. Problem-Solve Your Problem Statement

I know I risk getting into an infinite loop here, but as you may have noticed, getting the right perspective of a problem is, well, a problem in itself. As such, feel free to use any creative thinking technique you know to help. There are plenty to choose from:

You may want to give yourself an Idea Quota of problem statements. Or write a List of 100 problems to solve. SCAMPER your problem definition. These are just some of dozen techniques you can try.

Of course, how much effort you invest in **defining the problem** in contrast to how much effort you invest in **solving your actual problem** is a hard balance to achieve, though one which is attainable with practice.

Personally, I don't think that 55 minutes invested in defining a problem versus 5 minutes acting on it is usually a good proportion. The point is that we must be aware of how important problem defining is and correct our tendency to spend too little time on it.

In fact, when you start paying more attention to how you define your problems, you'll probably find that it is usually much harder than solving them. *But you'll also find that the payoff is well worth the effort.*

References:

- Einstein's Portrait: Yousuf Karsh.
- Einstein's Quote: Cracking Creativity.

15 Time Boxing Strategies to Get Things Done

Putting it simply, **time boxing is the most effective time management tool that I know of**. Even if you already know and use it to some extent, there is a good chance that you can make it even better with some of the tips that follow.

For those new to it, **time boxing is simply fixing a time period to work on a task or group of tasks**. Instead of working on a task until it's done, you commit to work on it for a specific amount of time instead.

But don't let the simplicity of the concept deceive you — there's much more to this tool than meets the eye.

Many people already wrote about it (check Dave Cheong for a great start, as well as J.D Meier and Steve Pavlina). Although these guys made a great job presenting it, time boxing has helped me so much that I decided to share **15 specific ways that it can help you too be more productive**. Here they are:

1. Make a Dent in Big Tasks

The most obvious use of a time box is to make progress on big tasks. On the one hand, it enables you to continuously make progress on these intimidating tasks. On the other hand, it makes sure working on these tasks won't overrun the rest of your day.

2. Get Rid of 'Mosquito Tasks'

Time boxes are a great way to tackle those annoying, tiny tasks that keep bugging you (pun intended). The problem with these pesky little tasks is that each of them, alone, may be regarded as insignificant enough to be postponed. After a while, however, there are enough of them to drain a significant amount of your mental energy. A good strategy to claim back that energy is to create a time box and tackle all of them at one sitting.

3. Overcome Procrastination

If you're procrastinating on a task, forget about completing it: just put it in a time box instead. You overcome your resistance towards the task and chances are that when the time is up you'll have built enough momentum to continue working on it much longer.

That's right, if procrastination is your problem, feel free to ignore the timer when it buzzes. That's what I call an 'open time box': you set a **minimum period of work**, which you may extend as you like. For such type of time boxes, I like to configure my timer with a round of applause sound as a little incentive to keep me going.

4. Conquer Perfectionism

Perfectionism is the flip side of procrastination. Instead of avoiding a task, you dwell on it for so long that when you notice, all your time

is gone. To avoid perfectionism and the effects of diminishing returns, having a definite cut-off time for a task is one of the best strategies you can use.

Dealing with perfectionism demands what I call a 'closed time box': setting a **maximum period of work**. When dealing with these time boxes, I like to configure my timer with a [disruptive, annoying buzz sound](#) to remind me drop the task immediately.

5. Sharpen Your Focus

Time boxing a particular task helps excluding other tasks and unrelated thoughts from your radar during that particular time window. Reducing mental clutter is essential if you want to be fully productive.

Also, by organizing your work in time boxes you have the structure you need to properly prepare for your tasks. By taking care of potential distractions beforehand you maximize your chances of getting fully in flow.

6. Increase Efficiency

Isn't it true that you get much more accomplished in one of those pre-vacation Fridays than on any other normal workday? For some reason, it seems that our most efficient work is usually done at the end of a time period when there's a very well-defined cut-off point.

Time boxes give you just enough of this healthy time pressure, enabling you to take full advantage of this 'end effect', so make sure

that timer is visible and you can see the time going by as you work on your task.

7. Boost Motivation

Big tasks, no matter how important, can be demotivating: you simply need to work for too long to see their outcomes. We may prefer deferring important tasks so we plow through many quick and easy tasks, just for the sake of the false perception of accomplishment.

But just like the simple act of crossing off items from your to-do list can be motivating, so is successfully completing a time box. Completing a time box works as a visible sign of progress.

Another idea on how to use time boxes to boost motivation is to make a game or challenge out of them: How many prospects can you call during one hour? Why not trying to beat your own record?

8. Work on 'Fuzzy' Goals

Although some people may want to stone me for this, I don't agree that we should have *SMART* goals for everything (*SMART* meaning 'specific, measurable, actionable, realistic and timely').

Sometimes I enjoy the freedom of an open outcome. Sometimes I just want to improve something — no specific, precise goal in mind. This has been especially the case since I started experimenting with smaller, gradual goals). I think it's healthy not being 100% objective all the time.

That said, you can't afford these "relaxed goals" to overrun your daily plan — you know, when you actually need to be fully focused on things such as deadlines and *SMART* goals. Corner your fuzzy goals with a time box and get the best of both worlds.

9. Kick-Off Creative Explorations

Projects that require a high amount of creativity are not best tackled start-to-finish. The most effective way to deal with a project like this is to have an initial phase of immersion — a period when you generate a burst of ideas — and then forget about them for a while. By letting it go, you give time for the subconscious mind to work on the problem.

This initial brainstorming phase is a perfect candidate for time boxing since there's usually no precise outcome for it. (Unless you define a precise outcome for the creative process, such as in a List of 100 or Idea Quota).

10. Raise Time Awareness

How many times have you wondered at the end of the day where did all your time go? As reader Iain Hamp suggested in a comment, performing time audits is an extremely valuable activity to diagnose your time, as well as aligning your time and values. Structuring your day in time boxes makes these audits super-easy to do.

Also, being more aware of how much you can really fit in your time is liberating, as it helps you saying 'no' to unimportant things more often.

11. Create a Work Rhythm

You only get maximum effectiveness if you properly balance periods of work and rest. Time boxes provide a great framework to allow this balance to happen. The key is to find your own rhythm.

Alternating between different types of time boxes (such as work/rest, or hard/easy tasks) maximizes your use of energy and enables you to accomplish much more.
My favorite work rhythm is alternating between blocks of 50 minutes of work and 10 minutes of rest. For quick sprints, Merlin Mann's remarkably effective (10+2)*5 hack is also a great option.

If you're interested in a more in-depth discussion about different patterns of time bursts, I recommend Mark Forster's book *Get Everything Done and Still Have Time to Play*.

12. Get Meaningful Work Done First

Working on your most important projects first thing in the morning is a classic tip to guarantee that you do meaningful work in your day. Create a time box to work on your dreams every day — before the world out there has a chance to disrupt your plans.

If you don't plan to use time boxes for anything else, please consider applying just this one tip. **This is perhaps the single, most effective thing you can do in pursuit of your dreams.**

13. Balance Your Life

It's common to become too focused on a specific area of our lives at the expense of others.

Remember, you don't need to use time boxing only for work-related tasks: you can block time for anything that matters to you: leisure, family, hobbies — anything.

Pre-allocating time boxes for the things that matter most is an excellent strategy to help you live a balanced life. In fact, planned time boxes are at the heart of the prioritization system I use. I plan to explore it more deeply in a new article.

14. Plug Time Sinks

You know what I am talking about: channel-surfing, web-surfing, games, feeds, e-mail — everybody seems to have a time drain in their lives. StumbleUpon, anyone?

Stop kicking yourself; all you need to do is to put a time box around them to reclaim the time back.

15. Reward Yourself

If you tie your rewards to the completion of tasks, you may find yourself doing only quick and easy tasks, and avoiding the important ones. Why not get yourself a little reward after you complete a time box instead?

A personal example: Checking e-mail multiple times a day is an old addiction I haven't yet managed to cure. While the ideal solution would be to the task of checking for e-mail in a time box, I now use it as a reward for completing time boxes — an extra incentive that works wonders!

Rewards can be as tiny as a glass of water or a deep breath at the window (for more about tiny rewards and their powerful effect, I recommend the chapter 'Bestow Small Rewards' in *One Small Step Can Change Your Life* — check the full book summary).

To check readers' comments or to post your own comment on this article, visit the original blog post.

Develop Perfect Memory With the Memory Palace Technique

The Memory Palace is one of the most powerful memory techniques I know. It's not only effective, but also fun to use — and not hard to learn at all.

The Memory Palace has been used since ancient Rome, and is responsible for some quite incredible memory feats. Eight-time world memory champion [Dominic O'Brien](#), for instance, was able to memorize 54 decks of cards in sequence (that's 2808 cards), viewing each card only once. And there are countless other similar achievements attributed to people using the Memory Palace technique or variations of it. Even in fiction, there are several references to the technique. In Thomas Harris' novel *Hannibal*, for example, serial killer Hannibal Lecter uses Memory Palaces to store amazingly vivid memories of years of intricate patient records (sadly, it was left off the [movie](#)).

Of course, most of us are not in Dominic's memory championship line of business (or in Hannibal's line of business for that matter). But still, the Memory Palace technique is amazingly effective in all kinds of endeavors, such as learning a foreign language, memorizing a presentation you're about to deliver, preparing for exams and many others — even if all you want is to jog your memory.

The Memory Palace

The Memory Palace technique is based on the fact that **we're extremely good at remembering places we know**. A 'Memory Palace' is a metaphor for any well-known place that you're able to easily visualize. It can be the inside of your home, or maybe the route you take every day to work. That familiar place will be your guide to store and recall any kind of information.

Let's see how it works.

5 Steps to Use the Memory Palace Technique

1. Choose Your Palace

First and foremost, you'll need to pick a place that you're very familiar with. **The effectiveness of the technique relies on your ability to mentally see and walk around in that place with ease.** You should be able to 'be there' at will using your mind's eye only.

A good first choice could be your own home, for example. Remember that the more vividly you can visualize that place's details, the more effective your memorization will be.

Also, try to **define a specific route in your palace instead of just visualize a static scene**. So, instead of simply picturing your home, imagine a specific walkthrough in your home. This makes the technique much more powerful, as you'll be able to recall items in a specific order, as we'll see in the next step.

Here are some additional suggestions that work well as Memory Palaces, along with possible routes:

- **Familiar streets in your city.** Possible routes could be your drive to work, or any other sequence of streets you're familiar with.
- **A current or former school.** You can imagine the pathway from the classroom to the library (or to the bar on the other side of the street, if that's the route imprinted on your mind).
- **Place of work.** Imagine the path from your cubicle to the coffee machine or to your boss's office (it shouldn't be hard to choose).
- **Scenery.** Imagine walking on your neighborhood or the track you use when jogging in a local park.

2. List Distinctive Features

Now you need to pay attention to specific features in the place you chose. If you picked a walkthrough in your home, for example, the first noticeable feature would probably be the front door.

Now go on and mentally walk around your Memory Palace. After you go through the door, what's in the first room?

Analyze the room methodically (you may define a standard procedure, such as always looking from left to right, for example). What is the next feature that catches your attention? It may be the central table in the dining room, or a picture on the wall.

Continue making mental notes of those features as you go. Each one of them will be a "memory slot" that you'll later use to store a single piece of information.

3. Imprint the Palace on Your Mind

For the technique to work, **the most important thing is to have the place or route 100% imprinted on your mind.** Do whatever is necessary to really commit it to memory. If you're a visual kind of person, you probably won't have trouble with this. Otherwise, here are some tips that help:

Physically walk through the route repeating out loud the distinctive features as you see them.

Write down the selected features on a piece of paper and mentally walk through them, repeating them out loud.

Always look at the features from the same point of view.

Be aware that visualization is a just a skill. If you're still having trouble doing this, you may want to develop your visualization skills first.

When you believe you're done, go over it one more time. It's really important to "overlearn" your way in your Memory Palace.

Once you're confident that the route is stamped on your mind, you're set. Now you have your Palace, which can be used over and over again to memorize just about anything you want.

4. Associate!

Now that you're the master of your palace, it's time to put it to good use.

Like most memory enhancement systems, the Memory Palace technique works with the use of visual associations. The process is simple: you take a known image — called the **memory peg —** and combine with the element you want to memorize. **For us, each memory peg is a distinctive feature of our Memory Palace.**

The memory pegging technique is the same one described in the article '*Improve Your Memory by Speaking Your Mind's Language*', so if you haven't read it yet, I highly advise you to do so.

As described in that article, there's a 'right way' of doing visual associations:

Make it crazy, ridiculous, offensive, unusual, extraordinary, animated, nonsensical — after all, these are the things that get remembered, aren't they? Make the scene so unique that it could never happen in real life. The only rule is: if it's boring, it's wrong.

Although we can use the technique to memorize tons of information, let's start with something very simple: using our 'Home' Memory Palace to memorize a groceries list. Let's suppose the first item in that list is 'bacon':

Mentally transport yourself to your Memory Palace. The first feature you see in your mind is your home's front door. Now, in a ludicrous way, visually combine 'bacon' with the sight of your front door.

How about giant fried bacon strips flowing out from underneath the door reaching for your legs, just like zombies in those B-movies? Feel the touch of the "bacon hands" on your legs. Feel the smell of darn evil bacon. Is that remarkable enough?

Now open the door and keep walking, following the exact same route you defined before. Look at the next distinctive feature, and associate it with the second item to be memorized. Suppose the next item is 'eggs' and the second feature is 'picture of mother-in-law'. Well, at this point you already know what to do… The process is always the same, so just keep mentally associating images until there are no items left to memorize.

5. Visit Your Palace

At this point, you are done memorizing the items. If you're new to the technique, though, you'll probably need to do a little rehearsal, repeating the journey at least once in your mind.

If you start from the same point and follow the same route, **the memorized items will come to your mind instantly as you look at the journey's selected features.** Go from the beginning to the end of your route, paying attention to those features and replaying the scenes in your mind. When you get to the end of your route, turn around and walk in the opposite direction until you get to the starting point.

In the end, it's all a matter of developing your visualization skills. The more relaxed you are, the easier it will be and the more effective your memorization will be.

Final Thoughts

What I like about the Memory Palace (and other pegging methods) is that it's not only extremely effective, but also quite fun to learn and use.

With just a little bit of experience, the lists you memorize using the Memory Palace will stay fresh in your mind for many days, weeks or even more.

Also have in mind that you can create as many palaces as you want, and that they can be as simple or as elaborate as you wish to make them. Each of them is a "memory bank", ready to be used to help you memorize anything, anytime.

Associating physical locations with mental concepts is the most powerful memory combination I know. Most other memory techniques (supposedly more sophisticated than the Memory Palace) are, at least in part, based on the concept of physical locations being used as memory pegs.

To check readers' comments or to post your own comment on this article, visit the original blog post.

Remember Any Number With the Major Memory System

Did you ever want to be able to recite *pi* up to 22,500 decimal digits? As for me, I never felt attracted to that sort of stuff. But remembering phone numbers, passwords, PINs, birthdays and all sorts of everyday numbers — *that's* something I resonate with!

Meet the Major memory system, **one of the most powerful techniques around for memorizing numbers**. If you think you could use a boost to your memory, or just want to jog your brain a little, here's a great way to do it. (And yes, you'll also be able to pull off the *pi* digits stunt if that's what catches your fancy.)

How the Major Memory System Works

Our brains are notoriously poor at memorizing numbers. The problem lies in the fact that numbers are abstract concepts. Although they are represented visually by symbols, they don't feel very real or appealing to our brains. As I explored in a previous article, **our brains usually work best using lively, vibrant images**. Numbers hardly qualify.

And that's what the Major system is about: **converting abstract, dull numbers into vivid, striking images**. When we do that, committing these numbers to memory is a snap. Let me show you how to do it.

The Major Memory System in 3 Steps

1. Learn to Encode Numbers as Images

The heart of the Major system — and the key to convert numbers to images and vice-versa — is a 10-item mnemonic table. The table shows how to transform the digits 0-9 into corresponding *sounds*; which we'll eventually use to form **words**. The mnemonics are easy to learn (it shouldn't take more than 20 minutes to fully master them) and, once learned, they can be used for life. Here they are:

Digit	Sound	Memory Aid
0	s, z, soft c	*z* is the first letter of zero. The others have a similar sound.
1	d, t, th	*d* and *t* have one downstroke and sound similar (notice the tip of your tongue as you say them).
2	n	*n* has two downstrokes.
3	m	m has three downstrokes, also m looks like a 3 lying on its side.
4	r	the last letter of four, also *4* and *R* are almost mirror images of each other.
5	l	L is the Roman numeral for 50.
6	j, sh, soft ch, dg, zh, soft g	a script j has a lower loop like 6. These letters also have a 'whistle-like' sound, and 6 looks like a whistle.
7	k, hard c,	capital *K* contains two *7s* (on their sides, back

	hard g, q, qu	to back).
8	v, f	think of *v* as in a *V8* motor. f sounds similar (notice how your teeth touch your lips for both).
9	b, p	*p* is a mirror-image *9*. b sounds similar and resembles a *9* rolled around (also notice how your lip movement is the same when pronouncing these letters.)
-	vowel sounds, w, h, y	These sounds can be used anywhere without changing a word's number value.

As an example, let's take the (in)famous number **42**.

According to the mnemonic table, the digits in the number 42 translate to *r* and *n* respectively. Now we need to form a word with *r* and *n*. We should fill the gaps between the letters using the 'neutral' elements (from the last row of the table: vowel sounds, *w, h* or *y*). The word *rain* comes naturally to me.

42 gets encoded as *rain*, then.

Decoding from word to number is even more straightforward. 'Mouse', for instance, becomes 30 (3 for *m* and 0 for *s*; vowel sounds are ignored).

The conversion process may seem a little slow and cumbersome at first, but with just a little bit of practice it becomes second-nature.

There are just a couple more notes to bear in mind:

The conversions are **strictly phonetic**, that is, based on how the words *sound* — not how they're spelled. If a word has double letters that account for just one sound, you count only one sound (ex: the *r* sound in *cherry* counts as only one number). By the same token, mute letters (such as the *b* in *debt*) should be ignored.

When coming up with words, **choose those that are easy to visualize**. Concrete nouns — such as objects or animals — always work better than abstract nouns, adjectives or verbs.

2. Associate Images in Your Mind

Now for the fun part. We already have an image, now we'll need a way to glue it in our minds. The way we're going to do this is **by imagining a scene**, a scene that combines two images: the encoded number image along with a *peg* image that will be used to trigger the memory.

As an example, suppose you want to buy a light bulb, and you must remember that it must be a 30-Watt one. The two images to combine would be the image for *light bulb* and the encoded image for 30. Using our mnemonic table, we find that 30 translates to the letters *m* and *s*. *Mouse* seems a pretty good word for these letters, so we'll go with it.

Our mission, then, is to create a mental scene combining *light bulb* and *mouse*.

The secret for this to work is to make the mental scene memorable: make it crazy, ridiculous, offensive, unusual, animated, nonsensical

— in short, **make it fun!** (For details on how to effectively associate images, check out this article.)

Let's see: What's the zaniest way you can combine *light bulb* with *mouse*? I don't know about you, but here's what I just imagined:

"I'm in my local supermarket, in the electrical accessories aisle. As I catch one light bulb to observe it more closely… Bang! It breaks in my hand, and a giant mouse jumps out of it! The mouse runs away, squeaking frenetically. Everybody in the supermarket stops and stares at me puzzled and in absolute silence…"

Well, imagine that scene vividly in your mind and try *not* remembering that giant mouse next time you're in that supermarket aisle… "30-Watt it surely is!"

3. For Large Numbers, Extend the System

"Yes, but everyone can memorize a small number such as 30," — you say — "what about the big numbers?"

The great thing about the Major system is that you can easily combine it with just about any other memory technique, simple or advanced. That's what makes the Major System insanely scalable and able to handle gigantic numbers.

For memorizing a small number we created a mental scene combining two images. To memorize a large number, we need to **link many of those scenes together, forming a sequence**.

There are many ways to do this. Many people like to create a story linking the scenes together, for example.

My favorite method, however, is to use the Memory Palace technique. In short, you use familiar places for storing memories. If you're not acquainted with it, check it out here).

Let's try a practical example again: an 8-digit telephone number.

The specifics on how to memorize it are a matter of personal preference, of course. The way I do it is by chunking the number in 4-digit groups, and placing each of those groups in a memory palace location.

I'll use my in-laws phone number (slightly modified), using their home as my memory palace:

Phone number: 2417-2220

Scene 1: Associate first memory palace feature (front door) with *2417*:

Using the Major system: **24 = Nero, 17 = Duck.**

"As I arrive at my in-laws' front door, I see no one but the emperor Nero himself, laughing out loud, as he is about to set the whole apartment on fire! But he has no matches or a torch in his hands: he has a blowtorch — in fact, a *rubber duck*-shaped blowtorch! And it quacks as it spits fire!"

Scene 2: Associate second memory palace feature (sofa) with *2220*:

Using the Major system: **22 = Nun, 20 = Nose.**

"As I enter their apartment is the sofa, the first thing I see is a nun chanting and jumping about on the sofa, facing backwards. When I touch her shoulder, she turns around — and it's actually a witch! She scares the hell out of me — and guess what — she has the biggest nose ever! And yuck — that's the biggest zit I've ever seen" (yes, getting disgusting is also a great way to help your memory!)

This may seem like a lot of work for a phone number, but in fact, this all happens quite fast in our minds. Recovering a number using the process above takes me no more than 4 seconds total — and I haven't been practicing that much lately. If you practice this regularly, you'll be able to do it much faster and with less effort.

Bonus: Gain Speed with a Word List

The previous three steps are the basic tools you need to use the Major system. If you want to make it *even more powerful and efficient*, one way is to use a predefined image list for the numbers you use more often.

If you use a set of predefined images for, say, all numbers from 00 to 99, you'll greatly improve your speed when forming images, as you won't need to imagine different words each time you trip on those numbers.

Of course, memorizing more than 100 mnemonics requires a fair amount of time and effort, but once it's all in your long-term memory, you can use it for life. To be fair, you don't need to *memorize* it (in the traditional sense of the word). Let me explain. If you just start using the mnemonics, the images will soon *automatically* come to you. I don't know, but there must be something about the phonetics that makes the images manifest themselves rather easily.

Here's a set of numbers you can use. If you don't like these words, feel free to substitute others that are more memorable to you:

0. Sow	20. Nose	40. Rose	60. Cheese	80. Fez	00. S.O.S.
1. Hat	21. Net	41. Road	61. Sheet	81. Fat	01. Seed
2. Hen	22. Nun	42. Rain	62. Chain	82. Fan	02. Sun
3. Ham	23. Nemo	43. Room	63. Jam	83. Foam	03. Sam
4. Row	24. Nero	44. Aurora	64. Cherry	84. Fire	04. Zero
5. Hill	25. Nail	45. Rail	65. Jello	85. File	05. Seal
6. Shoe	26. Notch	46. Rash	66. Judge	86. Fish	06. Sash
7. Cow	27. Neck	47. Rock	67. Chalk	87. Fog	07. Sack
8. Ivy	28. Knife	48. Roof	68. Chef	88. Fife	08. Sofa
9. Bee	29. Knob	49. Rope	69. Ship	89. Fib	09. Sepia
10. Toes	30. Mouse	50. Lace	70. Gas	90. Bus	
11. Dad	31. Mat	51. Loot	71. Cat	91. Bat	
12. Dune	32. Moon	52. Lion	72. Can	92. Pen	
13. Dime	33. Mummy	53. Lime	73. Comb	93. Opium	
14. Tire	34. Mower	54. Lure	74. Car	94. Bear	
15. Doll	35. Mule	55. Lily	75. Coal	95. Bell	
16. Tissue	36. Match	56. Leech	76. Cage	96. Bush	
17. Duck	37. Mug	57. Log	77. Coke	97. Book	
18. Dove	38. Movie	58. Lava	78. Cave	98. Beef	
19. Tape	39. Map	59. Lip	79. Cape	99. Pipe	

To check readers' comments or to post your own comment on this article, visit the original blog post.

Overcoming Procrastination Instantly Using Self Talk

Changing how we talk to ourselves is the easiest and most powerful way to overcome procrastination. No other method that I know of disarms procrastination so rapidly and at such a fundamental level: **that of our own thoughts**.

The Voices In Our Heads

We're talking to ourselves all the time inside our minds. Even when you're not paying attention, these relentless mental debates deeply influence our feelings and, ultimately, our behavior.

The good news is that just becoming aware of such mental dialogues — noticing patterns and turning them into productive statements — is usually all you need to overcome many unwelcome feelings and behaviors.

Let's see how this can help us when it comes to procrastination.

The Procrastinator's Motto

Consider the following thought, which for sure has crossed our minds many times in the past:

"I have to finish this long, important project. It should already be done by now and I need to plow through it."

Now, tell me you don't have this thought sometimes. For me, no other passage embodies our procrastinator's mind so well: as we'll see, this small, seemingly innocent thought contains almost every mental block that encourages procrastination. That's why I like to call it *the Procrastinator's Motto*.

We all use the *Procrastinator's Motto* (or variations of it) every once in a while. If you're a chronic procrastinator, chances are you repeat it to yourself very frequently — daily, perhaps.

But what's so wrong about the *Procrastinator's Motto*? In what ways do these words encourage procrastination so much — and what can we do about it?

From Procrastinator to Producer: A Step-by-Step Self Talk Guide

To understand what's wrong with the Procrastinator's Motto, let's break it down in parts:

"(1) I have to (2) finish this (3) long, (4) important project. (5) It should already be done by now and (6) I need to plow through it."

Now let's consider each of these six parts in turn, replacing each of them with an empowering alternative. In doing that, we'll turn the original motto on its head and create a productive call to action: a *"Producer's Motto"*, if you like.

1. I Have To → I Choose To

'I have to' is every procrastinator's favorite expression. It's also the most disempowering.

Every time you say to yourself that you *have to* do something, you imply that you don't have any choice. This choice of words implies that you feel forced or coerced to do the task — that you don't really want to do it. That perception, of course, elicits a strong feeling of victimhood and resistance towards doing the task.

The solution to this problem is to replace '*I have to*' with the immensely more empowering alternative '***I choose to***'.

Everything you do is ultimately a choice (yes, even completing tax forms). Using language that expresses choice reminds you of that and brings the feeling of power back.

For an in-depth exploration about the '*I have to*' expression, check this [early article](#) dedicated entirely to this matter.

2. Finish → Start

When you focus on *finishing* something, you direct your attention to a vague, highly idealized future. Visualizing a finished project is motivating for many people, but from the point of view of who's having a hard time *starting* a task, visualizing a hard-to-grasp future can be overwhelming — even depressing at times.

The solution in this case, then, is not to focus on finishing, but on **starting**.

Forget for a minute about the finish line, just concentrate on taking the first step. Bring your focus from the future to what can be done **right now**. We all know that if you start something a large enough number of times, you'll eventually finish any task.

Starting — all by itself — is usually sufficient to build enough momentum to keep the ball rolling from then on. This is what [Mark Forster](#) calls the *"I'll just get the file out" technique*, and it definitely works.

3. Long Project → Short Task

Constantly reminding yourself how long and challenging the upcoming undertaking is only adds to the feeling of being overwhelmed, and thus of procrastination.

Any undertaking, no matter how daunting, can be broken down into small steps. The trick is to, on each step along the way, focus solely on the very next smallest, doable chunk of work. Ignore the big picture for a while and just tackle that next short task.

Make it in a way you can easily visualize the outcome coming about very soon. Don't write a book; write a page. If it still looks intimidating, you may try committing to a [time box](#) instead.

Of course, keep the big picture in mind, but use it for motivation and direction as needed, and not to frighten yourself before action.

4. Important Project → Imperfect Step

"This project has to impress everyone; I really can't blow this opportunity."

Placing such high hopes on a project only adds to anxiety and fear of failure. Perfectionism arises and only fuels procrastination even more.

The way to overcome this mental block is to simply give yourself permission to be human. Allow yourself to be imperfect *just in this next small task*.

Focus on giving an imperfect step; remember that you can always refine your work later. Better yet, make it in a [way that you can't possibly fail](#).

If you're a serial perfectionist, go one step further and *commit yourself to make a sloppy job **on purpose***, at least at first.

5. It Should Already Be Done by Now → I'll Feel Terrific

The expression '*should*' is usually associated with blame and guilt. When you say you *should* be doing something (instead of what you're actually doing), you focus on comparing an ideal reality with your current, "bad" reality. You focus not on what is, but on what could have been. Misused '*shoulds*' can elicit a strong message of failure, depression and regret.

The solution is to focus not on how bad you feel now, but on how good you'll feel after you take action. Yes, directed action — even the tiniest of it — towards a goal is the best motivator I know of. The trick is to bring that expected feeling of accomplishment into the present — and know that the *real* joy of it is only a small task away.

6. Need to Plow Through → Have Plenty of Time for Play

"I've got to work all weekend". "I am trapped in this tedious project".

Long periods of isolation can bring an enormous feeling of resentment. This feeling generates a strong sense of deprivation and resistance towards the task.

The way to overcome this mental block is to not allow long stretches of work to creep in your activities. Schedule frequent breaks. Plan small rewards along the way. Have something to look forward to — not far away at the end of a long stretch — but in the very near feature. When rewards are small, frequent — and deserved — they work wonders.

Truly **commit** to leisure time. In fact, go ahead and make it mandatory. This "reverse-psychology" can by itself bring you to a whole different mindset, both more productive and enjoyable.

How Far Have We Come?

Time to check what we've accomplished with all the word substitutions. We started with:

"I have to finish this long, important project. It should already be done by now and I need to plow through it."

And ended up with:

"I choose to start this task with a small, imperfect step. I'll feel terrific and have plenty of time for play!"

Quite a change, eh?

Every time you catch yourself repeating the Procrastinator's Motto or any of its parts to yourself, stop and rephrase it. Then check how you feel.

While it may seem just a matter of word choices at first, when you try this simple way to reframe your thoughts, you'll see how instantly it changes your attitude towards working on your tasks. Moreover, if you turn it into a habit, you'll be slowly reprogramming your thoughts, leading to a positive, permanent change in your mindset.

The whole idea of using self talk to overcome procrastination first came to me first via [Neil Fiore](#)'s great book [The Now Habit](#), from which I learned a great deal.

While the book deals with much more than self talk (self talk is just one of the many chapters, check a *[summary of the book](#)* if you're

interested), that chapter alone made the most profound changes on how I deal with procrastination today.

> To check readers' comments or to post your own comment on this article, [visit the original blog post](#).

120 Ways to Boost Your Brain Power

Here are 120 things you can do starting today to help you think faster, improve memory, comprehend information better and unleash your brain's full potential.

1. Solve puzzles and brainteasers.
2. Cultivate ambidexterity. Use your non-dominant hand to brush your teeth, comb your hair or use the mouse. Write with both hands simultaneously. Switch hands for knife and fork.
3. Embrace ambiguity. Learn to enjoy things like paradoxes and optical illusions.
4. Learn mind mapping.
5. Block one or more senses. Eat blindfolded, wear earplugs, shower with your eyes closed.
6. Develop comparative tasting. Learn to properly taste wine, chocolate, beer, cheese or anything else.
7. Find intersections between seemingly unrelated topics.
8. Learn to use different keyboard layouts. Try Colemak or Dvorak for a full mind twist!
9. Find novel uses for common objects. How many different uses can you find for a nail? 10? 100?
10. Reverse your assumptions.
11. Learn creativity techniques.
12. Go beyond the first, 'right' answer.
13. Transpose reality. Ask "What if?" questions.
14. SCAMPER!
15. Turn pictures or the desktop wallpaper upside down.

16. Become a critical thinker. Learn to spot common fallacies.
17. Learn logic. Solve logic puzzles.
18. Get familiar with the scientific method.
19. Draw. Doodle. You don't need to be an artist.
20. Think positive.
21. Engage in arts — sculpt, paint, play music — or any other artistic endeavor.
22. Learn to juggle.
23. Eat 'brain foods'.
24. Be slightly hungry.
25. Exercise!
26. Sit up straight.
27. Drink lots of water.
28. Deep-breathe.
29. Laugh!
30. Vary activities. Get a hobby.
31. Sleep well.
32. Power nap.
33. Listen to music.
34. Conquer procrastination.
35. Go technology-less.
36. Look for brain resources in the web.
37. Change clothes. Go barefoot.
38. Master self-talk.
39. Simplify!

40. Play chess or other board games. Play via Internet (particularly interesting is to play an ongoing game by e-mail).
41. Play 'brain' games. Sudoku, crossword puzzles or countless others.
42. Be childish!
43. Play video games.
44. Be humorous! Write or create a joke.
45. Create a List of 100.
46. Have an Idea Quota.
47. Capture every idea. Keep an idea bank.
48. Incubate ideas. Let ideas percolate. Return to them at regular intervals.
49. Engage in 'theme observation'. Try to spot the color red as many times as possible in a day. Find cars of a particular make. Invent a theme and focus on it.
50. Keep a journal.
51. Learn a foreign language.
52. Eat at different restaurants – ethnic restaurants specially.
53. Learn how to program a computer.
54. Spell long words backwards. !gnignellahC
55. Change your environment. Change the placement of objects or furniture — or go somewhere else.
56. Write! Write a story, poetry, start a blog.
57. Learn sign language.
58. Learn a musical instrument.
59. Visit a museum.
60. Study how the brain works.
61. Learn to speed-read.
62. Find out your learning style.
63. Dump the calendar!
64. Try to mentally estimate the passage of time.
65. "Guesstimate". Are there more leaves in the Amazon rainforest or neuron connections in your brain? (answer).
66. Make friends with math. Fight 'innumeracy'.
67. Build a Memory Palace.
68. Learn a peg system for memory.
69. Have sex! (sorry, no links for this one!)
70. Memorize people's names.
71. Meditate. Cultivate mindfulness and an empty mind.
72. Watch movies from different genres.
73. Turn off the TV.
74. Improve your concentration.
75. Get in touch with nature.
76. Do mental math.
77. Have a half-speed day.
78. Change the speed of certain activities. Go either super-slow or super-fast deliberately.
79. Do one thing at a time.
80. Be aware of cognitive biases.
81. Put yourself in someone else's shoes. How would different people think or solve your problems? How would a fool tackle it?
82. Adopt an attitude of contemplation.
83. Take time for solitude and relaxation.
84. Commit yourself to lifelong learning.
85. Travel abroad. Learn about different lifestyles.

86. Adopt a genius. (Leonardo is excellent company!)
87. Have a network of supportive friends.
88. Get competitive.
89. Don't stick with only like-minded people. Have people around that disagree with you.
90. Brainstorm!
91. Change your perspective. Short/long-term, individual/collective.
92. Go to the root of the problems.
93. Collect quotes.
94. Change the media you're working on. Use paper instead of the computer; voice recording instead of writing.
95. Read the classics.
96. Develop your reading skill. Reading effectively is a skill. Master it.
97. Summarize books.
98. Develop self-awareness.
99. Say your problems out loud.
100. Describe one experience in painstaking detail.
101. Learn Braille. You can start learning the floor numbers while going up or down the elevator.
102. Buy a piece of art that disturbs you. Stimulate your senses in thought-provoking ways.
103. Try different perfumes and scents.
104. Mix your senses. How much does the color pink weigh? How does lavender scent sound?
105. Debate! Defend an argument. Try taking the opposite side, too.
106. Use time boxing.

107. Allocate time for brain development.
108. Have your own mental sanctuary.
109. Be curious!
110. Challenge yourself.
111. Develop your visualization skills. Use it at least 5 minutes a day.
112. Take notes of your dreams. Keep a notebook by your bedside and record your dreams first thing in the morning or as you wake up from them.
113. Learn to lucid dream.
114. Keep a lexicon of interesting words. Invent your own words.
115. Find metaphors. Connect abstract and specific concepts.
116. Manage stress.
117. Get random input. Write about a random word in a magazine. Read random sites using StumbleUpon or Wikipedia.
118. Take different routes each day. Change the streets you follow to work, jog or go back home.
119. Install a different operating system on your computer.
120. Improve your vocabulary.
121. Deliver more than what's expected.

To check readers' comments or to post your own comment on this article, visit the original blog post.

Top 10 Thinking Traps Exposed — How to Foolproof Your Mind

Our minds set up many traps for us. Unless we're aware of them, these traps can seriously hinder our ability to think rationally, leading us to bad reasoning and making stupid decisions. Features of our minds that are meant to help us may, eventually, get us into trouble.

Here are the first 5 of the most harmful of these traps and how to avoid each one of them.

1. The Anchoring Trap: Over-Relying on First Thoughts

"Is the population of Turkey greater than 35 million? What's your best estimate?" Researchers asked this question to a group of people, and the estimates were seldom too far off 35 million. The same question was posed to a second group, but this time using 100 million as the starting point. Although both figures were arbitrary, the estimates from the '100 million' group were, without fail, concomitantly higher than those in the '35 million' group. *(for the curious, here's the answer.)*

Lesson: Your starting point can heavily bias your thinking: **initial impressions, ideas, estimates or data "anchor" subsequent thoughts.**

This trap is particularly dangerous as it's deliberately used in many occasions, such as by experienced salesmen, who will show you a

higher-priced item first, "anchoring" that price in your mind, for example.

What can you do about it?

- **Always view a problem from different perspectives.** Avoid being stuck with a single starting point. Work on your problem statement before going down a solution path.
- **Think on your own before consulting others.** Get as much data as possible and explore some conclusions by yourself before getting influenced by other people's anchors.
- **Seek information from a wide variety of sources.** Get many opinions and broaden your frame of reference. Avoid being limited to a single point of view.

2. The Status Quo Trap: Keeping on Keeping On

In one experiment a group of people were randomly given one of two gifts — half received a decorated mug, the other half a large Swiss chocolate bar. They were then told that they could effortlessly exchange one gift for the other. Logic tells us that about half of people would not get the gift they prefered and would hence exchange it, but in fact *only 10% did*!

We tend to repeat established behaviors, unless we are given the right incentives to entice us to change them. **The status quo automatically has an advantage over every other alternative.**

What can you do about it?

- **Consider the status quo as just another alternative.** Don't get caught in the 'current vs. others' mindset. Ask yourself if you would choose your current situation if it weren't the status quo.
- **Know your objectives.** Be explicit about them and evaluate objectively if the current state of affairs serves them well.
- **Avoid exaggerating switching costs.** They frequently are not as bad as we tend to assume.

3. The Sunk Cost Trap: Protecting Earlier Choices

You pre-ordered a non-refundable ticket to a basketball game. On the night of the game, you're tired and there's a blizzard raging outside. You regret the fact that you bought the ticket because, frankly, you would prefer to stay at home, light up your fireplace and comfortably watch the game on TV. What would you do?

It may be hard to admit, but staying at home is the best choice here. The money for the ticket is already gone regardless of the alternative you choose: **it's a *sunk cost*, and it shouldn't influence your decision.**

(This example is from an earlier article which focuses entirely on the sunk cost effect. Check it out if you want to know more.)

What can you do about it?

- **Be OK with making mistakes.** Examine why admitting to earlier mistakes distresses you. Nobody is immune to errors, so you shouldn't make a big deal out of it — just make sure you learn from them!
- **Listen to people who were not involved in the earlier decisions.** Find people who are not emotionally committed to past decisions and ask their opinion.
- **Focus on your goals.** We make decisions in order to reach *goals*. Don't become attached to the particular series of steps you took towards that goal; always consider how you can better fulfill that goal *from now on*.

4. The Confirmation Trap: Seeing What You Want to See

You feel the stock market will be going down and that now may be a good time to sell your stock. Just to be reassured of your hunch, you call a friend that has just sold all her stock to find out her reasons.

Congratulations, you have just fallen into the *Confirmation Trap*: **looking for information that will most likely support your initial point of view** — while conveniently avoiding information that challenges it.

This confirmation bias affects not only where you go to collect evidence, but also how you interpret the data: we are much less critical of arguments that support our initial ideas and much more resistant to arguments against them.

No matter how neutral we think we are when first tackling a decision, our brains always decide — intuitively — on an alternative right away, making us subject to this trap virtually at all times.

What can you do about it?

- **Expose yourself to conflicting information.** Examine all evidence with equal rigor. Don't be soft on disconfirmatory evidence. Know what you are about: Searching for alternatives or looking for reassurance!
- **Get a devil's advocate.** Find someone you respect to argue against the decision you're contemplating making. If you can't find one, build the counterarguments yourself. Always consider the other positions with an open mind (taking into account the other mind traps we are discussing here, by the way).
- **Don't ask leading questions.** When asking for advice, make neutral questions to avoid people merely confirming your biases. "What should I do with my stocks?" works better than "Should I sell my stocks today?"

5. The Incomplete Information Trap: Review Your Assumptions

Harry is an introverted guy. We know that he is either a librarian or a salesman. Which one do you think he most probably is?

Of course, we may be tempted to think he's almost certainly a librarian. Haven't we been conditioned to think of salesmen as having outgoing, if not pushy, personalities? Too bad this reasoning may be dead wrong (or at least incomplete).

This conclusion neglects the fact that salesmen outnumber librarians about 100 to 1. Before you even consider Harry's character traits, you should have assigned only a 1% chance that he's a librarian. (That means that even if *all* librarians are introverted, all it takes is 1% of introverts among the salesmen to make the chances higher for Harry being a salesman.)

That's just one example of how **overlooking a simple data element can make our intuitions go completely astray**. We keep mental images — simplifications of reality — that make we jump to conclusions before questioning assumptions or checking whether we have enough information.

What can you do about it?

- **Make your assumptions explicit.** Don't take a problem statement as it is. Keep in mind that for every problem you're

using implicit information — your assumptions. It's usually not hard to check the validity of assumptions, but first you need to know what they are.

- **Always favor hard data over mental simplifications.** Our preconceptions — such as stereotypes — can be useful in many situations, but we should always be careful to not over-rely on them. When given the choice, always prefer hard data.

6. The Conformity Trap: Everybody Else Is Doing It

In a series of experiments, researchers asked students in a classroom a series of very simple questions and, sure enough, most of them got the answers right. In another group, they asked the same questions but this time there were actors posing as students, purposefully pushing wrong answers. This time around, many more students provided wrong answers based on the leads from the researchers' assistants.

This "herd instinct" exists — to different degrees — in all of us. Even if we hate to admit it, **other people's actions do heavily influence ours.** We fear looking dumb: failing along with many people is frequently not considered a big deal, but when we fail alone we must *take all the heat ourselves*. There's always peer pressure to adopt the behaviors of the groups we're in.

This tendency to conform is notoriously exploited in advertising. Businesses often sell us products not based on their features, but by showing *how popular* they are: since others are buying it in droves, why would we not join them?

Conformity is also one of the main reasons why once a book makes into a well-known best-sellers list, it tends to "lock in" and continue there for a long time. People like to consume what "everybody else" is consuming.

What can you do about it?

- **Discount the influence of others.** When analyzing information, shield yourself from others' opinions — at least at first. This is the best way to decide without being subconsciously swayed by popular opinions.

- **Beware "social proof".** Always raise a flag when someone tries to convince you arguing primarily on the popularity of a choice, instead of on its merit.

- **Be courageous.** Be willing to overcome obstacles and defend your viewpoints, despite their unpopularity. Don't be afraid to point out that the Emperor wears no clothes.

7. The Illusion of Control Trap: Shooting in the Dark

Have you noticed that the vast majority of lotto players pick their own numbers instead of using the sometimes available 'auto-pick' option (where the point of sales terminal chooses the numbers for

you)? We all know that however the numbers are chosen doesn't change the chance of winning, so why the strong preference for picking our own numbers?

Curiously, even in situations we clearly can't control, **we still tend to irrationally believe that we can somehow influence results. We just love to feel in control.**

Of course, it's always easier to illustrate this trap with chance games, but the tendency to overestimate our personal control of events influences every aspect of our daily lives.

Unfortunately, contrary to the lottery example above, the outcomes of our decisions are usually complex and interconnected. It's hard to assess to what extent we're responsible for the results we get. While some of the outcomes can be traced back to our own choices, a part of them will surely remain just as well out of our direct control.

What can you do about it?

- **Understand that randomness is part and parcel of life.** Although it may be hard to fathom or even admit it, some things are just random — in the sense that they don't depend on your effort at all. Accept responsibility for the things you can influence, but know that for many others there is not much you can do. Better than assuming or expecting that every event is under your control is to consciously choose how you respond to them.

- **Beware of superstitions.** Consider how much of your decisions are based on things you cannot really explain. Make those

unknowns explicit and put them under scrutiny — instead of pretending you can control them.

8. The Coincidence Trap: We Suck at Probabilities

John Riley is a legend. He won a one-in-a-million-chance lottery… **twice!** That makes it a *1-in-a-trillion event* — which means that the lottery is rigged or maybe John must have been singled out by Lady Luck, right?

Well, not really. Let's try a little math: If, throughout the years, 1000 lottery winners keep playing at least 100 times attempting the "miracle" of winning it once more, that adds up to a non-negligible chance of *10%* that *someone* will make it.

This means that **the "miracle" is not only possible but — given enough attempts — its likelihood increases to a point of becoming almost *inevitable*.**

Another classic example: it takes a group of just 23 people to make it more likely than not that two of them share the same birthday (day and month).

That's how unintuitive probabilities are.

What can you do about it?

- **Don't over-rely on gut estimates.** While useful many times, gut estimates will sometimes be *way off the mark*. Make sure you properly discount their importance or that you understand the ramifications of trusting them.

- **Beware of "after the fact" probabilities.** One thing is the probability of *someone* having won the lottery twice — looking at it in retrospect. Another completely different thing is that *a particular person — chosen before the outcome* — wins it: that would indeed qualify as a one-in-a-trillion event — and would make anyone seriously doubt the legitimacy of that lottery.

9. The Recall Trap: Not All Memories Are Created Equal

What's your best guess for the probability of a randomly selected flight ending in a fatal crash? While many people grossly overestimate it, MIT studies show that in reality these fatal accidents happen at a rate of only *1 in 10,000,000*.

The fact that people suck at estimating probabilities explains only partially this tendency to mis-estimate: if you ask the same question right after a major airplane accident, be prepared for *even more biased* assessments.

What happens is *we analyze information based on experience,* **on what we can remember from it**. Because of that, we're overly influenced by events that stand out from others, such as those with highly dramatic impact or very recent ones. The more "special" an event is, the greater the potential to distort our thinking. Of course, no one ever bothers about the other 9,999,999 planes that arrive safely at their destinations — so there's nothing more natural than forgetting about them.

What can you do about it?

- **Get hard data.** As usual, don't rely on your memory if you don't have to. Use it, of course, but always endeavor to find data that confirms or discounts your recollection as soon as possible.

- **Be aware of your emotions.** When analyzing information, try to emotionally isolate yourself from it, at least temporarily. If you're analyzing an event, pretend it happened a long time ago or that it happened to someone else unrelated to you. Likewise, if asking for opinions, find people who are not emotionally involved with them or their consequences.

- **Beware the media.** The media is notorious for exaggerating the importance of certain events while conveniently neglecting others. Always evaluate information on its relevance and accuracy, and not on how much exposure it gets.

10. The Superiority Trap: The Average is Above Average

A study surveyed drivers asking them to compare their driving skills to other people in the experiment. Almost all the participants (93%!) rated themselves as 'above average'.

With few exceptions, **people have much inflated views of themselves**. They overestimate their skills and capabilities, leading to many errors in judgment.

And this is the reason I decided to close this article with this particular thinking trap. After making ourselves aware of these many thinking traps, we may now become susceptible to falling into a new one: **the belief that we're now immune to them**.

Of course, the first step to avoid thinking traps is awareness and constant vigilance, but beware: it's much, much easier to notice *others* falling into these traps than us.

What can you do about it?

- **Be humble.** Always remember that everyone has blind spots (yes, that includes me and you)!

- **Surround yourself with honest people.** If we all have blind spots, nothing better than having honest people around us to point them out to us.

- **Don't go overboard.** These 'thinking traps' are inherent parts of us: they make us human. Applying rigor and rational thinking to our decisions is important, but that doesn't mean that intuition has completely lost its place. Don't get me wrong: I still think that knowing about our own thinking traps is very useful — just don't get too worked up about them.

Further Resources

These ten thinking traps barely scratch the surface when it comes to how our thinking can be biased. Wikipedia's list of cognitive biases has more than **100 of these traps**, making it a hard-to-beat starting point for further learning.

The references for the studies that back up the data in this article can be found on the respective articles on Wikipedia, as well as on the book Smart Choices. That's a marvelous book about decision making, and one which I highly recommend. Another great book to check out is Thomas Gilovich's How We Know What Isn't So.

To check readers' comments or to post your own comment on this article, visit the original blog post.

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All the best!
Luciano